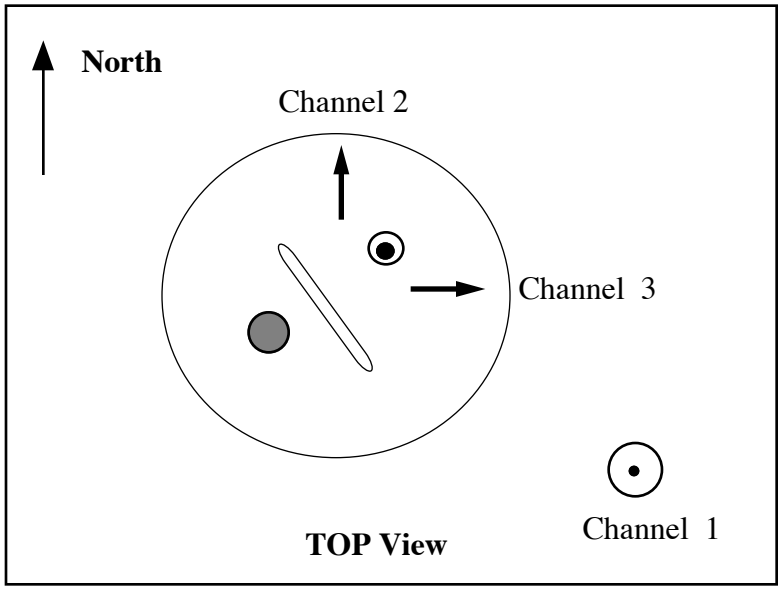
Mark Products L-4C3D



Channel Order
(positive voltage on DAS channel means ground moved in given direction)
1 Up
2 North
3 East

Sensitivity

171 volts / meter / second

Calibration constant

Typical DAS parameters:
Gain 32
Cal Amplitude 1.0 Volt
Cal Interval 5 seconds
Cal Step Size 6 seconds

Physical Characteristics:

Size cylinder 30 cm diameter, 30 cm height
Weight 12 kg.
Shipping Weight 40 lbs, **Size** 12x12x24 inches (wooden Gbox)
Power consumption

None, passive sensor

Frequency Response:

Natural Freq. 1.0 Hz.
Damping 0.707 critical
Zeros two at zero
Poles -4.44 + 4.44*i*
-4.44 - 4.44*i*

Installation Tips:

1) Dig a hole a 10-18 inches deep
2) Determine direction of orientation (e.g. north). Sensor has magnets, so keep compass away.
3) Note the serial number of sensor.
4) Align sensor to azimuth
5) Adjust sensor level until bubble is in center. Placing the sensor on sand or a blob of plaster of paris makes this easier. Sensor levelling feet are not normally used by PASSCAL with this seismometer.
7) Bury the sensor up to the height of the top, keeping it level.
8) Attach the sensor cable to the sensor and to the DAS, bury any surface cable runs a few inches.
9) Monitor some cal pulses to be sure sensor mass has symetric range of travel
10) Bury seismometer

The sensor has no mass locking mechanism, except that afforded by the position in which it is normally carried (i.e., the masses resting against the stop due to gravity). This position is upside down and tipped so that a Northeast vector inclined at 45° is now pointed straight down. When packing the sensor in its case, note the crazy foam pieces to hold it in the "locked position". Also dig the special transit plugs to be connected to the sensor when in transit. These short the sensor coils, tending to reduce the mass motion.

Cabling Notes:

A 4 meter cable is provided with each sensor. It has a PT06-12-5S connector on one end to mate with the sensor and a U77/U on the other end to mate with the REF TEK DAS sensor input. The cal coils are connected in series inside the sensor package. The damping resistors are also inside the package. The coil resistance is 5500 Ohms.